

Listing of Claims:

1. (Currently Amended) A helical screw rotor compressor comprising:

a rotor housing that includes a first end wall and a second end wall, wherein said walls are parallel with one another and connected by a barrel wall, wherein said barrel wall has internally the shape of two parallel and mutually intersecting cylinders, and wherein the rotor housing further includes an inlet port at a first end and an outlet port at a second end,

two rotors which co-act with each other and also with the rotor housing and each of which includes a respective shaft mounted in end walls of the compressor housing, and a respective rotor body surrounding a respective shaft, said bodies having parallel end surfaces between the end walls of the rotor housing,

wherein ~~the~~ each said rotor body includes mutually separated helical lobes that have a crown, a first or leading flank surface on a first side of the crown and a second or trailing flank surface on a second side of the crown, and

wherein the second or trailing flanks of said lobes of at least one of the rotor bodies are beveled or chamfered adjacent ~~to the second an~~ end surface of the rotor body at said outlet opening port.

2. (Previously Presented) The helical screw rotor compressor according to Claim 1, wherein the rotor body comprises a polymeric material.

3. (Previously Presented) The helical screw rotor compressor according to Claim 2, wherein the rotor body comprises a thermoplastic resin.

4. (Previously Presented) The helical screw rotor compressor according to Claim 2, wherein the rotor body comprises a thermosetting resin.

5. (Previously Presented) The helical screw rotor compressor according to Claim 1, wherein the bevel or chamfer functions to reduce the width of the lobe at said end surface by at most 3 mm.

6. (Previously Presented) The helical screw rotor compressor according to Claim 1, wherein the bevel or chamfer functions to reduce the width of the lobe at said end surface by 0.5 mm at the lowest.

7. (Previously Presented) The helical screw rotor compressor according to Claim 1, wherein the bevel or chamfer is perpendicular to the end surface.

8. (Previously Presented) The helical screw rotor compressor according to Claim 1, wherein the rotor shaft is made of steel.